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DAFFER MCDANIEL LLP
P.O. BOX 684908
AUSTIN, TX 78768

EXAMINER	
SWEARINGEN, JEFFREY R	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/740,531
Filing Date: December 18, 2000
Appellant(s): COPELAND ET AL.

Kevin L. Daffer
Reg. No. 34,146
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed March 21, 2006 appealing from the Office action mailed 10/24/2004.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

09/740,460 Notice of Appeal filed on or about January 18, 2005

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,706,435	Barbara et al.	1-1998
6,327,628	Anuff et al.	12-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims as previously stated in the action issued by Examiner Kianersi:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5-7, 10-12, 14-16, and 19-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Barbará et al. (U.S. Patent No. 5,706,435).

In regard to claim 1, Barbará discloses *a server; a client, adapted to send requests to the server; and a numeric-valued generation ID, accompanying each request from the client to the server, incremented by the server upon receiving the request, and recorded by the server before being returned to the client, and such that if the generation ID accompanying a request from the client differs from the generation ID recorded by the server, an affinity break between the client and the server is detected.* See Barbará, abstract, column 10, lines 66-67, column 11, lines 1-5, column 10, lines 52-62. Barbará discloses a server and a client which exchange invalidation reports with timestamps present in order to detect problems in cache coherency (affinity breaks). See Barbará, column 8, lines 1-50. The naming of the server and client is not important since Barbará does not present a distributed application. The use of a timestamp makes the numerical value of the ID inherent.

In regard to claim 2, Barbará is applied as in claim 1. Barbará further discloses *a plurality of clients adapted to send requests to the server, wherein each client has a unique ID.* See Barbará, column 2, line 62. See Barbará, column 8, lines 3-25, which presents invalidation reports with timestamps.

In regard to claim 3, Barbará is applied as in claim 2. Barbará further discloses *an affinity command, which combines the generation ID accompanying a request with the user ID of the client sending the request, and by means of which the server may detect an affinity break with a particular client among the plurality of clients.* See Barbará, column 10, lines 14-16, figure 5, column 10, lines 52-62.

The detection of an invalidation in cache coherency which is accomplished by Barbará performs the equivalent functionality of this claim. The transmission of the *affinity command* is the transmission of the invalidation report. The *generation ID* is the timestamp. The *user ID of the client sending the request* is present in any network transmission since the sending address is inherently sent with a network transmission from a server to a client or a client to a server.

In regard to claim 5, Barbará further discloses *a plurality of servers, wherein affinity between a client and first server may be broken as a result of the client sending a request to a second server.* See column 9. line 22. Barbará detects cache coherency problems based upon a report not being received by the proper recipient. See column 6, lines 26-56.

In regard to claim 6, Barbará further discloses *an affinity break between a client and a server may occur if the server becomes unavailable.* See column 9, line 22. Barbará detects cache coherency problems based upon a report not being received by the proper recipient. See column 6, lines 26-56.

In regard to claim 7, Barbará further discloses *detection of an affinity break between a client and a server may be used to invalidate contents of the cache in the server.* See column 6, lines 41-56.

In regard to claim 10, Barbará discloses *the client sending a request to the server, accompanied by a numeric-valued generation id (GID); the server receiving the request and the GID from the client, and comparing the received GID against a previously recorded GIS; if the received GID matches the recorded GID, incrementing the recorded GID, and returning it to the client as the new GID; and if the received GID does not match the recorded GID, reporting an affinity break between the client and the server.* These limitations are largely the limitations of claim 1. The comparison of GIDs is described in column 6 of Barbará and the functions described here are basic inherent steps of cache coherency, wherein duplicate records are prevented and data is invalidated upon detecting that a request has not been received.

In regard to claim 11, Barbará is applied as in claim 10. Barbará further discloses *a plurality of clients adapted to send requests to the server, wherein each client has a unique ID.* See Barbará, column 2, line 62. See Barbará, column 8, lines 3-25, which presents invalidation reports with timestamps.

In regard to claim 12, Barbará is applied as in claim 11. Barbará further discloses *sending an affinity command with each request from a client, such that the affinity command combines the GID with the user ID of the client sending the request, and detecting an affinity break with a particular client among the plurality of clients by means of the user ID.* See Barbará, column 10, lines 14-16, figure 5, column 10, lines 52-62. The detection of an invalidation in cache coherency which is accomplished by Barbará performs the equivalent functionality of this claim. The transmission of the *affinity command* is the transmission of the invalidation report. The *generation ID* is the timestamp. The *user ID of the client sending the request* is present in any network transmission since the sending address is inherently sent with a network transmission from a server to a client or a client to a server.

In regard to claim 14, Barbará is applied as in claim 12. Barbará further discloses *detecting affinity breaks between a plurality of clients and a plurality of serves, each of which is equipped with a cache, such that affinity between a client and first server may be broken as a result of the client sending a request to a second server.* See column 9. line 22. Barbará detects cache coherency problems based upon a report not being received by the proper recipient. See column 6, lines 26-56.

In regard to claim 15, Barbará is applied as in claim 14. Barbará further discloses *an affinity break between a client and a server may occur if the server becomes unavailable.* See column 9, line 22. Barbará detects cache coherency problems based upon a report not being received by the proper recipient. See column 6, lines 26-56.

In regard to claim 16, Barbará is applied as in claim 15. Barbará further discloses *detection of an affinity break between a client and a server may be used to invalidate contents of the cache in the server.* See column 6, lines 41-56.

In regard to claim 19, Barbará discloses *instructions for the server receiving a request and a numeric-valued generation ID (GID) from the client, and comparing the received GID against a previously recorded GID; instructions for incrementing the recorded GID, and returning it to the client as the new GID, if the received GID matches the recorded GID; and instructions for reporting an affinity break between the client and the server, if the received GID does not match the recorded GID.* These limitations are largely the same as the limitations of claim 10.

In regard to claim 20, Barbará is applied as in claim 19. Barbará further discloses *instructions for the client sending a request to the server, accompanied by a numeric-valued generation ID (GID).* This limitation is present in claim 10.

In regard to claim 21, Barbará discloses *means for the server receiving a request and a numeric-valued generation ID (GID) from the client; comparing the received GID against a previously recorded GID; means for incrementing the recorded GID, and returning it to the client as the new GID, if the received GID matches the recorded GID; and means for reporting an affinity break between the client and the server, if the received GID does not match the recorded GID.* These limitations are largely the same as the limitations of claim 10.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious

at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4, 8-9, 13 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barbará in view of Anuff et al. (U.S. Patent No. 6,327,628).

In regard to claim 4, Barbará is applied as in claim 1. Barbará fails to disclose use of a Java Virtual Machine equipped with a cache. However, Anuff discloses a method where a memory cache can be cleared by the Java Virtual Machine when resources are running low. See Anuff, column 11, lines 61-63. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Barbará with the teachings of Anuff in order to improve the method of maintaining a coherent view of the data in the cache of each mobile unit. The improved method would not require the mobile units to stay online at all times, and would not require a full cache refresh each time a mobile unit is turned on.

In regard to claims 8 and 17, Barbará in view of Anuff is applied as in claims 4 and 16. Barbará fails to disclose the use of a cookie to return an affinity command. However, Anuff teaches that a browser cookie can store login information so that each time a user visits a site they do not have to log in. See column 13, lines 25-31 of Anuff. Therefore it would be obvious to one of ordinary skill in the art to combine Barbará with Anuff in order to allow users to access data faster.

In regard to claims 9 and 13, Barbará is applied as in claims 1 and 11. Barbará fails to disclose the use of an object-oriented system. However, Anuff discloses the use of software objects. See Anuff, column 4, lines 47-48. Therefore it would be obvious to one of ordinary skill in the art to use an object-oriented programming environment in Barbará to allow for the ease of authoring and modifying the software code by the programmer.

(10) Response to Argument

In regard to independent claims 1, 10, 19, and 21, Appellant argues that Barbará fails to disclose a client that sends a request to a server, where the request includes a numeric-valued generation ID (GID). The Examiner disagrees.

Appellant argues that the Barbará reference is not applicable because Barbará refers to an invalidation report sent from a server to a client processor. The Examiner notes this fact. The Examiner also believes that the naming of what is a "server" and what is a "client" is irrelevant. Client-server architecture is a long-standing key component of the networking art. Advances in technology have blurred the line demarking what is termed a server and what is termed a client. Technically, a server can send information to a client and receive information from a client; a client also can do the same to a server. Naming a machine a "server" or a "client" is irrelevant to the Barbará art since no distributed program is being run from the "server" and distributed to "clients". Barbará merely discloses a method of cache coherency between a "server" and a "client." The important concept is that a request is sent to another computer. The labeling of the machines is not important.

Appellant argues that the Barbará reference fails to disclose the invalidation report uses a numeric-valued generation ID. Appellant refers to a specific embodiment of Barbará to point out that no numerical values are present in the invalidation report. However, the Examiner refers to column 7, lines 54-65 of the Barbará reference which points out the use of timestamps in the invalidation report. It is well known to the art that a timestamp is stored in a computer as a numerical value and the preferred format of the timestamp is extrapolated upon display based on the application preferences. The presence of a numerically valued generation ID in the form of a timestamp invalidates appellant's argument that the invalidation reports of Barbará fail to include a numeric-valued generation ID.

In regard to independent claims 10, 19 and 21, Appellant argues that Barbará fails to disclose a server, which is adapted to receive the request from the client and to compare the received GID against a previously recorded GID. The Examiner has already addressed appellant's arguments about the naming of the client and server and the presence of a numerically-valued ID. Barbará also compares the timestamps (IDs). See Barbará, column 8, lines 6-9.

In regard to independent claims 1, 10, 19 and 21, Appellant argues that Barbará fails to disclose that, if the received GID matches the recorded GID, the server increments the recorded GID and returns the incremented GID to the client as a new GID. The functionality here is ensuring cache coherency between the server and client by checking to make sure that duplicate entries do not exist between the

server and the client. This is an inherent function of any cache coherency system, where the presence of duplicate IDs for data would cause havoc with the system because of data conflicts and storage errors.

In regard to independent claims 1, 10, 19 and 21, Appellant argues that Barbará fails to disclose that an affinity break is detected/reported between the client and the server, if the received GID does not match the recorded GID. The Examiner points out column 8 of Barbará, which discloses checking a timestamp to ensure the data meets coherency requirements. This is the same functionality as the claimed invention, which recognizes a failure in cache coherency, or an "affinity break".

In regard to claims 4, 8, 9, 13 and 17, Appellant argues that Barbará in view of Anuff fails to disclose a server adapted to: (i) receive a request including a numeric-valued generation ID (GID) from a client, (ii) compare the received GID against a GID previously recorded in the server, (iii) increment the recorded GID and return the incremented GID to the client as a new GID, if the received GID matches the recorded GID, or (iv) report an affinity break between the client and the server, if the received GID does not match the recorded GID. The Examiner has previously addressed all of these arguments by Appellant.

In regard to claim 4, Appellant argues that Barbará in view of Anuff fails to disclose a server comprising a Java Virtual Machine equipped with a cache. Appellant's arguments on this point are not directed toward the Java Virtual Machine; the arguments are rather directed towards Appellant's previous arguments involving the client/server and GID as previously addressed by the Examiner.

In regard to claims 9 and 13, Appellant argues that Barbará in view of Anuff fails to disclose a system in which a server is adapted to perform the functions in claims 1 and 10, where the system comprises an object-oriented software system. Appellant's arguments on this point are again addressed toward the suggested problems with Barbará in regard to claims 1 and 10 and not toward the object-oriented software system of claims 9 and 13. The Examiner has previously addressed the rejection to claims 1 and 10.

In regard to claims 8 and 17, Appellant argues that Barbará in view of Anuff fails to disclose an affinity command that may be sent by a server to a client (and returned by the client to the server) in the form of a cookie. Appellant specifically argues that the cookie in Anuff is unable to support the data

claimed by Appellant. The Examiner of record contends that a cookie is able to store many types of information as required by the application in question. The inventive point is the use of the cookie, not the data used in the cookie since data can be easily interchanged and replaced with other data. Anuff's cookie stores a user name and password – two disparate pieces of information. Appellant claims a cookie storing a user ID and a generation ID – two disparate pieces of information. Such a modification would be obvious to one of ordinary skill in the art.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Jeffrey R. Swearingen JRS

Conferees:

Jason Cardone

Rupal Dharia

JASON CARDONE
SUPERVISORY PATENT EXAMINER

RUPAL DHARIA
SUPERVISORY PATENT EXAMINER